

HUNGARY/Physical Chemistry - Kinetics. Combustion. B-9
Explosions. Topochemistry. Catalysis

Abs Jour: Referat Zhur - Khim, No. 9, 1959, 30507

condition for detonation consists of the ensemble of (1), (2), and $|E_p| > |E_c|$ and $x \geq y$ (or $|E_p| \leq |E_c|$ and $x \leq y$). The authors discuss a number of examples drawn from their own researches published in earlier communications. X. A critical discussion is given of a large number of experimental results obtained in the study of the kinetics of the cold-flame oxidation of hydrocarbons (H), particularly of CH_3CHO (I), and it is shown that all current concepts on the nature of cold flames (CF) are inadequate for the explanation of the experimental material. The following mechanism is proposed for the initiation of CF: when the concentration of the I formed in the course of the oxidation reaches a critical value $\langle I_c \rangle_c$ corresponding to the boundary of the region of cold-flame defla-

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HUNGARY/Physical Chemistry - Kinetics. Combustion. B-9
Explosions. Topochemistry. Catalysis

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001654330011-7"

Abs Jour: Referat Zhur - Khim, No. 9, 1959, 30507

gration (CFD) of I itself at the given temperature and for the H concentration used (since the addition of H shifts the CFD limit), a CF spike will be observed to appear on the kinetic curve for the oxidation of the H. The formation of the spike is accompanied by the following reactions: $2I \rightarrow \text{CH}_3\text{CH}_2\text{O}$ (II) + CH_3CO (III); III + $\text{O}_2 \rightarrow \text{CH}_2\text{O} + \text{OH} + \text{CO}$; II + OH $\rightarrow \text{CH}_3\text{OH} + \text{CH}_2\text{O}$. The above sequence of reactions leads to a decrease in the concentration of I below $\langle I_c \rangle_c$ and the CF disappears. The cycle is repeated until the concentration of the unconsumed H is sufficient to maintain the rate of formation of I at a level sufficient to assure the accumulation of I to $\langle I_c \rangle_c$. It is suggested that the oscillation of $\langle I_c \rangle$ about $\langle I_c \rangle_c$ during the

Card 4/5

Distr: 4E3d/4E4j/4E2c(j)

On the Kinetics of the Oxidation of Hydrocarbons, VIII. Remarks
of the Induction Period And On the Existence of Steps in Oxidation
Processes.--D. Gál and Z. G. Szabó (Institute for Inorganic and
Analytical Chemistry, University of Szeged)

Received March 16, 1956
Acta Chimica-Academiae Scientiarum Hungaricae
1958, Vol 16, Nr 1, p 13

7
2 MAY
3

SUMMARY

- ✓ 1. The suitability of definitions of the duration of induction period established by various authors was proved by the use of experimental data obtained in the oxidation of ethane. The term running-up time has been introduced.
2. Applying the data of the present experiments, examples were given to present the wall effects observable under experimental conditions.
3. It has been pointed out that the experimental data of the authors confirm the existence of steps introduced by SEMENOV. The principle experimental results are:
a) occurrence of a side process in the induction period of the oxidation of ethane,
b) action of methylamine and nitric oxide in this side process, and
c) appearance of an "induced-degenerated cold-flame" under the action of nitric oxide. 27

Jeff Jm

Distr: 4E2c(j)/4E3d 7

m/f

Slow and cold-flame oxidation of acetaldehyde and effect of ethane on this oxidation. D. Gal, I. Galiba, and Z. G. Szabó (Univ. Szeged). *Acta Chim. Acad. Sci. Hung.* 10, 39-49 (1958) (in English).—At a given temp. and pressure a sharp transition between the slow oxidation of AcH and the cold-flame oxidation is observed. Both oxidations are inhibited by the presence of ethane. The inhibition manifests itself by an initial decrease in pressure followed by an increase. The time required to reach the min. increases directly with the ethane pressure. In the presence of ethane higher total pressures are needed to reach the cold-flame region. Analysis of the observed pressure changes points to a reaction zone intermediate between the slow oxidation and the cold-flame region. The results support an earlier hypothesis about the mechanism of cold flames (cf. preceding abstr.). George A. Hall, Jr.

7
5-11 May
2

OK

COUNTRY	:	Hungary	7
CATEGORY	:	Laboratory Equipment. Instrumentation	
ABS. JOUR.	:	RZKhim., No. 22 1959, No.	78394
AUTHOR	:	Szabo, Z. G. and Kiraly, D.	
JOURNAL	:	Hungarian Academy of Sciences	
TITLE	:	A Versatile Torsion Balance for the Chemical Laboratory	
ORIG. PUB.	:	Acta Chim Acad Sci Hung, 17, No 4, 393-410 (1958)	
ABSTRACT	:	The principle of operation of a balance representing a combination of the usual beam balance and of a torsion microbalance is described. The results from a variety of investigations carried out with the new apparatus are described briefly: determination of densities and molecular weights of different gases (JO_2 , N_2 , CO , CH_2 [sic], Ar), determination of the ratio of the components in gas mixtures, measurement of gas absorption, thermogravimetric measurements, etc. The high	

GRAPH: 1/2

SZABO, Z.

HUNGARY / Analytic Chemistry, Analysis of Inorganic Substances. D

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60650.

Author : Zoltan Szabo, Mihaly Beck, Kalman Toth.

Inst

Title : Photometric Determination of Fluorine Ion by Its Inhibiting Effect on Extraction.

Orig Pub: Magyar kem. folyorat, 1958, 64, No 1, 35-37; Mikrochim. acta, 1958, No 2, 181-185.

Abstract: It was established that the sensitivity of photometric analysis methods based on the decrease of the optical density of a colored solution under the influence of complex forming ions to be de-

Card 1/4

HUNGARY / Analytic Chemistry. Analysis of Inorganic E
APPROVED FOR RELEASES 08/31/2001 CIA-RDP86-00513R001654330011-7"

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60650.

Abstract: determined can be considerably increased, if the measurement of the extinction change was carried out in the organic phase after the extraction of the colored compound with organic compounds, i.e., by the determination of the inhibiting influence of the ion to be determined on the extraction. The system Fe(3+) rhodanide - fluoride was studied as an illustration. Determined amounts of $\text{FeNH}_4(\text{SO}_4)_2$ and NaSCN solutions were mixed at the experiments, the solution of F^- to be determined (10 to 100 γ) was added, and pH was adjusted on the level of 2.9 ± 0.03 . The necessity of keeping pH strictly on that level is dictated by the fact that the dissociation of H_2F_2 and thiocyanic acid is inhibited at a lower pH, and hydrocomplexes

Card 2/4

HUNGARY / Analytic Chemistry. Analysis of Inorganic
Substances.

E

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60650.

Abstract: mole per liter), It is necessary first to separate F from these ions, if they were present.

Card 4/4

Q/I

HUNGARY/Physical Chemistry. Kinetics. Combustion. Explosions. Topochemistry. Catalysis. B

Abs Jour: Ref. Zhur. - Khimiya, No. 4, 1959, 11112

Authors : Szabo Z., Solymosi F., Batta I.

Inst : Not given

Title : The Dependence of the Decomposition of Formic Acid on Certain Oxide Semiconductors.

Orig Pub: Magyar kem. folyoirat, 1958, 64, No. 6, 223-224.

Abstract: There was investigated the catalytic activity of certain oxides, possessing an electronic or ~~aperture~~ conductivity in relation to the decomposition of formic acid. The mechanism of the reaction is under discussion.—The authors' resume

Card 1/1

S Z ADO, -.

428/60.

19

539.125.5.076.

A pulsed (d, t) neutron source. A. Ádám, L. Bod, Z. Szabó, L. Szeghő. A Magyar Tudományos Akadémia Körzeti Fizikai Kutató Intézetnek Köilemeztjei (Proceedings of the Central Research Institute for Physics of the Hungarian Academy of Sciences), Vol. 7, 1959, No. 6, pp. 331-340, 10 figs.

6
IJP(C).

A horizontally arranged 200 kV accelerator has been developed and built for producing neutrons in $T^3(d, n)He^4$ reactions. The operating and focusing conditions of the accelerator were investigated. A net ion current of 200-300

μ A could be focused on the target. Using a Zr-T target, the measured neutron yield was found to be $3 \cdot 10^7$ neutrons per μ Coul for a clean target.

1st line

4

Change of catalytic activity and electric conductivity of the mixed oxide $MgO-Cr_2O_3$ during spinel formation. Z. G. Szabó and F. Solymosi (Univ. Szeged, Hung.). Z. *Elektro-chem.* 63, 1177-83 (1959); cf. *C.A.* 54, 2921g. Catalytic and elec. properties of mixed oxides $MgO-Cr_2O_3$ were investigated as a function of sintering temp. During spinel formation the mixed oxides have enhanced catalytic activity, which is brought into direct relation with a higher defect-electron-cond. during the intermediate states by cond. measurements. H. H. Jaffe

Szabó Zoltán

4
1968 (WB)

The change of the catalytic activity and electrical conductivity of $MgO-Cr_2O_3$ mixed oxide during spinel formation. Zoltán G. Szabó and Frigyes Sólymosi (Univ. Szeged, Hung.). *Z. anorg. u. allgem. Chem.* 301, 225-7 (1959).—The influence of ignition temp. (300-1100°) on the elec. cond. of a 1:1 $MgO-Cr_2O_3$ catalyst and on the catalytic effect of the oxide on the decompr. of HCO_2H are studied. The elec. cond. and catalytic effect increase slightly as the ignition temp. increases from 100° to 600°, then rise sharply. Above 600° the elec. cond. falls steadily for higher ignition temps, but the catalytic effect has a broad max. near 800°. The elec. cond. is independent of O pressure. The activation energy for the HCO_2H decompr. changes little for oxide preprns. ignited at 600-800° but increases sharply for ignition temps. above 900°. The increase in cond. and catalytic effect correlate well with spinel formation, shown by color changes at 600° and appearance of $MgCr_2O_4$ lines in the x-ray diffraction pattern at 700°. Richard H. Jaquith
ant

Card 1/1

S2 A Bo, Z.G.

reports to be presented at the 2nd Int'l Congress on Catalysis, Paris, France, 4-9 July '60.

- Czechoslovakia
- BERANEC, L., and SOJKA, V. - "The mechanism of the deactivation of alcohols on alumina" (Section II)
 - DALES, V. - "Study of the characteristics of powder catalysts during their formation. Nickel catalysts. (Section II)
 - JEMEL, J. - "Release of radioactive inert gases from surface labelled platinum during catalytic and surface reactions" (Section II)
 - JIRAK, P., and JAHN, V. - "The influence of alkali metal sulfides on the activity of vanadium pentoxide in the catalytic oxidation of sulfur dioxide" (Section II)
 - JAHN, V., and DALES, V. - Investigation by Raman, G., and DALES, V. - Investigation by a new method of determining of catalysts" KILIAN, E. - Contribution on the mechanism of chemisorption of carbon monoxide and carbon dioxide on nickel oxide" (Section II)
 - KRIVAKOVA, V., and DALES, V. - Contribution to the clarification of reasons for catalytic activity on Ni-Mg mixed catalytic agents" KUTAVYK, J. - "Thermal decomposition of some oxalates" (Section II)
 - KUDICEK, V., and KUDROV, Z. - "Adsorption on supported metal films" (Section II)
 - KUDICEK, M. - "Magnetic investigations of nickel bimetal catalysts" (Section II)
 - MATOUSEK, F., KUDICEK, P., and JEMEL, J. - "The mechanism of hydrocarbons cracking in a fluidized bed of ceramic oxide" (Section II)
 - NEALE, SIRION AL [sic], P., and NUTTA, PERMANO - "Catalytic studies on catalytic styrene oxidation" (Section I)
 - NEAL, S. D., and SOJKA, V. - "Influence of the dioxane structure of supports on thin activity of catalyst" (Section III)
 - NEAL, S. D., and MARCH, P. - "Mechanism of the influencing of nitric oxide in the thermal decomposition of propionic aldehyde" (Section I or II)

Bulgaria

Distr: 4E2c(j)/4E3d

9

Discussion of heterogeneous catalytic reactions on the basis of electron theory. I. Some important statements on the theory of solid bodies with respect to the development of catalytic effects. Zoltán Szabó (Szegedi Tudományos Szervezet Anal. Kém. Int., Szeged, Hung.). *Magyar Tudományos Akad. Kém. Tudományok Osztályának Közleményei* 13, 59-80 (1960).—A crit. summary is given on some important theories of the structure of solid bodies from the point of view of the catalytic effects. The Bloch-Sommerfeld theory of metallic bonds, elec. cond. and magnetic properties of metals, and the bond theory of the structure of semiconductors are discussed in detail. II. Metals and alloys as catalysts. Zoltán Szabó and Frigyes Solymosi. *Ibid.* 81-95.—A summary is given on the activity of metal and alloy catalysts of various compn., the theory on the subject and the exptl. results. The relation between the catalytic efficiency and the electron structure of metals and alloys is discussed. 25 references. III. The application of the theory of semiconductors to the problems of heterogeneous catalysis. Frigyes Solymosi. *Ibid.* 97-114.—The properties of oxide catalysts is discussed on the basis of the characteristics of semiconductors. The theories and exptl. investigations are summarized. A detailed discussion is given on the catalytic properties of oxide mixts. and spinels with regards to elec. properties. 42 references.

1-BII (CBW)
1-JAJ (CNB)
1-JJF (CMY)

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11
MT

SZABO, Zoltan (Szeged); SOLYMOSI, Frigyes (Szeged)

Study of the heterogeneous catalytic reactions on the basis of the theory of electrons. II. Metals and alloys as catalysts. Kem tud kozl
MTA 13 no.1:81-95 '60. (EEAI 10:2)

1. Szegedi Tudomanyegyetem Szervetlen es Analitikai Kemial Intezete.
2. Levelező tag, Magyar Tudomanyos Akademia (for Szabo)
(Catalysts) (Chemical reactions)
(Electrons) (Metals) (Alloys)

SZABO, Zoltan (Szeged); BERCES, Tibor (Szeged)

Consistency of the strength of chemical bonds. Kem tud kozl MTA 13
no.3:255-267 '60. (EEAI 9:11)

1. Szegedi Tudomanyegyetem Szervetlen es Analitikai Kemiai
Instezete, Szeged. 2. Levelezo tag , Magyar Tudomanyos Akademia
(for Szabo)
(Chemical bonds)

SZABO, Zoltan (Szeged)

Achievements in research in organic chemistry in Hungary during the past decade. Kem tud kozl MTA 14 no.3:355-361 '60.
(EEAI 10:9)

1. Levelező tag, Magyar Tudományos Akadémia. A Szegedi Tudományegyetem Szervetlen és Analitikai Kemiai Intézete.

(Hungary—Chemistry, Organic)
(Hungarian Academy of Sciences)

SZABO, Zoltan G., prof., dr. (Szeged); BERCES, Tibor, dr. (Szeged)

On the consistency of chemical bond strengths. Acta chimica Hung 22
no.4:461-474 '60. (EEAI 10:2)

1. Institute for Inorganic and Analytical Chemistry, University of
Szeged, Hungary.
(Chemical bonds)

SZABO, Zoltan G, Prof. dr. (Szeged, Beloianisz ter 7); SOLYMOSI, Frigyes
(Szeged, Beloianisz ter 7)

Investigations on the catalytic decomposition of formic acid as a
function of the defect structure of electron conductor titanic
dioxide; a preliminary report. Acta chimica Hung 25 no.2:145-160
'60. (EEAI 10:4)

1. Institute of Inorganic and Analytical Chemistry, University
of Szeged, Hungary.

(Catalysts) (Decomposition) (Formic acid)
(Electrons) (Titanium oxides) (Dehydrogenation)
(Chromium oxides)

SZABO, Zoltan; SZAVA, Jozsef

Factors influencing thermal decomposition of potassium picrate.
Magy kem folyoir 66 no. 6:227-234 Je'60.

1. Szegedi Tudomanyegyetem Szervetlen es Analitikai Kemial Intezete
es Banyaszati Kutato Intezet, Budapest.

SZABO, Zoltan; SOLYMOSI, Frigyes

Investigation of catalytic and electrical properties of
mixture oxides with chrome oxide base during the information
of spinel. Magy kem folyoirat 66 no.7:275-278 J1 '60.

1. Szegedi Tudomanyegyetem Szervetlen es Analitikai Kemial Inteze-
te. 2. "Magyar Kemial Folyoirat" szerkeszto bizottsagi tagja (for
Szabo).

BATTA, Istvan; SOLYMOSI, Frigyes; SZABO, Zoltan

Investigation of the decomposition of dinitrogenoxide on a
differently fed copper oxide catalyst. Magy kem folyoir 66 no.7:
278-281 Jl '60.

1. Szegedi Tudomanyegyetem Szervetlen es Analitikai Kemial Inteze-
te. 2. "Magyar Kemial Folyoirat" szerkeszto bizottsagi tagja (for
Szabo).

83832
H/005/60/066/008/001/002
B020/B064

AUTHORS:

TITLE:

PERIODICAL: Magyar Kémiai Folyóirat, 1960, Vol. 66, No. 8,
pp. 289 - 291

Solymosi, Frigyes, and Szabó, Zoltán
Effect of the Semiconductor Properties of the ¹Titanium
Dioxide Carrier on the Catalytic Properties of Metallic
Nickel

TEXT: In the present paper, the catalytic properties of a nickel layer with an n-type titanium dioxide carrier are investigated as a function of the electron vacancies of titanium dioxide. The activation energy of the decomposition of formic acid as a function of the nickel content of the carrier of pure titanium dioxide annealed at high temperature to the more, the effect exerted by the doping with ions of higher Sb_2O_5 , WO_3 and lower Be_2O_3 valency was studied. It was found that the reduction of the electrical conductivity of titanium dioxide (doping with ions of

Card 1/3

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Effect of the Semiconductor Properties of the
Titanium Dioxide Carrier on the Catalytic
Properties of Metallic Nickel

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B020/B064

lower valency) reduces the activation energy of the decomposition of formic acid, whereas an increase in the electrical conductivity (doping with ions of higher valency) increases the activation energy measured on pure nickel. The results obtained from the doping of nickel oxide (Table 1) showed that an addition of only 1% of NiO reduced the activation energy considerably, with an especially high reduction at 5 mole% NiO. On adding chromium oxide, the doping mechanism depends to a great extent on the gas medium used in annealing. In the authors' opinion, the rise in conductivity due to chromium oxide is caused by the formation of a p-type layer in the oxygen medium on the surface of the carrier. Nickel oxide constitutes a similar case; the surprisingly great reduction in the activation energy is not due to the decreasing conductivity of titanium dioxide, but above all to the formation of a particularly effective Ni/NiO contact. The results obtained were also discussed by comparison with those of G. M. Schwab and his collaborators, and it was pointed out that shortly after Schwab the authors published an article on the carrier properties of nickel oxide (Ref. 2). This

Card 2/3

SZABO, Zoltan; SOLYMOSI, Frigyes

Investigation of the catalytic decomposition of formic acid as a function of the defect structure of the electron-conducting titanium dioxide. Magy kem folyoir 66 no.11: 462-468 N '60.

1. Szegedi Tudomanyegyetem Szervetlen es Analitikai Kemial Intezete. 2. "Magyar Kemiai Folyoirat" szerkeszto bizottsagi tagja (for Szabo).

H/005/60/000/011/002/002
E142/E335

AUTHORS: Szabó, Zoltán and Solymosi, Frigyes
TITLE: Relation Between the Catalytic and Electric
Behaviour of p-type Conducting Oxides
PERIODICAL: Magyar Kémiai Folyóirat, 1960⁴⁶, No. 11,
pp 469 - 475
TEXT: Mayer (Z. Elektrochem., 50, 274, 1944 - Ref. 2) and,
later, Bevan, Shelton and Anderson (J. Chem. Soc., 1948,
1729 - Ref. 3) first investigated the electric properties of
chromic oxide catalysts and found that the conductivity of
chromic oxide increased with the partial pressure; this
indicates that chromic oxide belongs to the p-conductor
group. Results of later investigations by Hauffe and Block
(Z. Phys. Chem., 1951, 232, 1951 - Ref. 4) and Schottky, Weller and
Volz (J. Amer. Chem. Soc., 76, 4695, 1954 - Ref. 5a;
Z. Phys. Chem. N.F., 5, 100, 1955 - Ref. 5b) are discussed.
The authors investigated the catalytic activity of chromic
and nickel oxides by studying the dehydrogenation and

Card 1/4

H/005/60/000, 011/002/002
E142/E335

Relation Between

dehydration reactions of formic acid. The reaction rates were measured on a modified Schwab reactor. The following catalysts were tested: Cr_2O_3 , $\text{Cr}_2\text{O}_3\text{-TiO}_2$, $\text{Cr}_2\text{O}_3\text{-K}_2\text{O}$, $\text{Cr}_2\text{O}_3\text{-Li}_2\text{O}$. Conductivity measurements have shown that although the conductivity of Cr_2O_3 decreases under the test conditions, due to the reduction of formic acid, the p-conducting property of Cr_2O_3 is still maintained. It was found that decrease in the defect electron concentration of chromic oxide lowers the activity of the catalyst whilst increasing its activation energy. Similar conclusions were reached on comparing the initial activities of nickel oxide-Li₂O and $\text{Cr}_2\text{O}_3\text{-Ni}_3\text{O}_4$ catalysts. The authors also found that a decrease in the conductivity of the catalyst has a beneficial effect on the dehydrogenation reaction. Further experiments dealt with the catalytic and electric properties of chromic oxide contaminated with small amounts of potassium oxide. The following mechanism

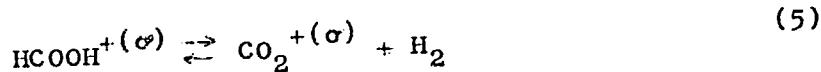
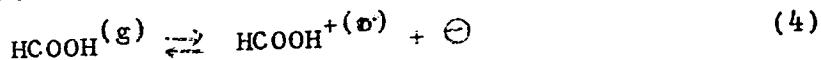
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H/005/60/000/011/002/002

E142/E335

Relation Between

is suggested:



Experimental results have also shown that the electric properties of the catalyst are affected by the selectivity of the catalyst and that variations in the concentration of defective ions affect the activation energy of the formic-acid disintegration. There are 10 figures, 1 table and 16 references: 2 Hungarian and 14 non-Hungarian. The four latest English-language references quoted are: Ref. 5a (in text); Ref. 6 - R. Chaplin, R.H. Griffith and J.D.F. Marsh, Proc. Roy. Soc., A 224, 419, 1954; ✓

Card 3/4

Relation Between

H/005/60/000/011/002/002
E142/E335

Ref. 8 - S.E. Voltz and S.W. Weller - J. Phys. Chem. 59,
566, 1955; Ref. 9 - S.E. Voltz and S.W. Weller, J. Amer.
Chem. Soc., 76, 1566, 1954.

ASSOCIATION: Szegedi Tudományegyetem Szervatlen- és
Analitikai-Kémiai Intézete
(Szeged Scientific and Research Institute for
Analytical Chemistry)

SUBMITTED: March 21, 1960

Card 4/4

ERDEY-GRUZ, Tibor, akademikus (Budapest); CHOLNOKY, Laszlo; SZABO, Zoltan;
SZEKER, Gyula, kandidatus; FOLDI, Zoltan; LANGYEL, Sandor, a tudomanyok
doktora; TAKACS, Pal, kandidatus

An account of the 1960 work of the Section of Chemical Sciences,
Hungarian Academy of Sciences. Kem tud kozl MTA 15 no.4:401-460 '61.

1. Osztalytitkar, Magyar Tudomanyos Akademia Kemiai Tudomanyok Osztalya,
Budapest es Szerkeszto, Magyar Tudomanyos Akademia Kemiai Tudomanyok
Osztalyanak Kozlemenyei(for Erdey-Gruz) 2.Lev.tag, Magyar Tudomanyos
Akademia Kemiai Tudomanyok Osztalyanak Kozlemenyei(for Cholnoky, Szabo,
Foldi) 3.Szerkesztobizottsagi tag, Magyar Tudomanyos Akademia Kemiai
Tudomanyok Osztalyanak Kozlemenyei(for Lengyel)

(Hungarian Academy of Sciences) (Hungary—Chemistry)

SZABO, Zoltan; MARTA, Ferenc

Effect of nitrogenmonoxide on the thermal decomposition of propyl aldehyde. III. Thermal decomposition of propyl aldehyde in presence of nitrogenmonoxide. (To be contd). Magy kem folyoir 67 no.6:233-238 Je '61.

1. Szegedi Tudomanyegyetem Szervetlen es Analitikai Kemiai Intezete 2. "Magyar Kemiai Folyoirat" szerkeszto bizottsagi tagja (for Szabo).

SZABO, Zoltan; MARTA, Ferenc

Effect of nitrogenmonoxide on the thermal decomposition of propyl aldehyde.IV. Mechanism of the effect of nitrogenmonoxide in the thermal decomposition of propyl aldehyde. Magy kem folyoir 67 no.6:238-244 Je '61.

1. Szegedi Tudomanyegyetem Szervetlen es Analitikai Kemial Intezete 2. "Magyar Kemial Folyoirat" szerkeszto bizottsagi tagja (for Szabo).

R/005/62/000/005/001/001
D249/D307

AUTHOR:

Szabó, Zoltán

TITLE:

Ten years of development of the principle of
stabilization of free radicals and the most
significant results in this field

PERIODICAL:

Magyar Kémiai Folyóirat, no. 5, 1962, 216-221

TEXT: A review of the developments of the principle
of free radical stabilization and of quantitative data on reac-
tions which can be interpreted by applying this principle. It was
shown by Mulliken that transient substances can be formed between
certain atoms and molecules by partial charge transfer from one
reactant to the other. This process can be interpreted on analogy
with the Lewis-type neutralization reaction. The bond strength in
the resulting complex depends on the electron affinity of one re-
actant and on the ionization potential of the other. Proofs of
this theory were obtained both in the liquid and in the gas phases.

Card 1/3

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D249/D307

Ten years of development ...

Experimental results, taken largely from Western work, are reviewed on the kinetics of stabilization, heat of stabilization, reversibility of the process and isomerization of the stabilized radicals. Attention is drawn to the significance of the radical RO_2 . RO_2 and HO_2 occur very frequently in the reaction mechanisms, especially in the combustion hydrocarbons. One of the most important consequences of the stabilization of free radicals in reaction kinetics can be found in the recombination of atoms and radicals. Due to the stabilization of radicals the process $I + I + M = I_2 + M$ can be assumed to take place in two bimolecular stages: $I + M = IM$ and $IM + I = I_2 + M$ instead of by three-body collisions. Finally a paper of the author is reviewed on the role of free radical stabilization in the catalysis of homogeneous gas reactions. The most important developments can be expected from techniques leading to determination of the concentration of free, stabilized or non-stabilized radicals. These techniques will be a combination of absorption spectrographic and flash photolytic studies. There are 2 figures, 1 table and 45 references: 4 Soviet-bloc and 41 non-Soviet-bloc.

Card 2/3

Ten years of development ...

H/005/62/000/005/001/001
D249/D307

ASSOCIATION: Szegedi tudományegyetem szervetlen - és analitikai
kémiai intézete (Department of Inorganic and Ana-
lytical Chemistry, University of Szeged)

SUBMITTED: November 17, 1961

Card 3/3

SZABO, Zoltan

"General and inorganic chemistry" by Bela Lengyel, Janos Proszt,
and Pal Szarvas. Reviewed by Zoltan Szabo. Kem tud kozl MTA 18
no.1: no page '62.

1. A Magyar Tudomanyos Akademia Kemiai Tudomanyok Osztalyanak
Kozlemenyei szerkeszto bizottsagi tagja.

SZABO, Zoltan; LAKATOS, Bela, kandidatus

Some remarks about M.Haissinsky's paper "Comparison of the chemistry of cis and trans-uranides with that of lanthanides and of transition elements." Kem tud kozl 18 no.3:413-418 '62.

1. Szegedi Tudomanyegyetem Szervetlen es Analitikai Kemial Tan-szeke. 2. Akademial levelezo tag, es "A Magyar Tudomanyos Akademia Kemial Tudomanyok Osztalyanak Kozlemenyei" szerkeszto bizottsagi tagja (for Szabo).

SZABO, Zoltan; SOLYMOSI, Frigyes, kandidatus; EGRI, Laszlo

The effect of the electrical properties of carriers on the
activity of catalysts. Kem tud kozl 18 no.3:447-458 '62.

1. Szegedi Tudomanyegyetem Szervetlen es Analitikai Kemiai Tan-
szeke, Szeged. 2. Akademiai levelező tag, es "A Magyar Tudomanyos
Akademia Kemiai Tudomanyok Osztalyanak Kozlemenyei" szerkeszto
bizottsagi tagja (for Szabo).

SZABO, Zoltan, G., prof., dr. (Szeged, Beloiannisz ter 7); MARTA, Ferenc,
dr. (Szeged, Beloiannisz ter 7)

Effect of nitric oxide on the thermal decomposition of
propionaldehyde. II. Thermal decomposition of propionaldehyde
in presence of nitric oxide. Acta chimica Hung 32 no.1:69-79
'62.

1. Institute of Inorganic and Analytical Chemistry,
University of Szeged.

SZABO, Zoltan G., prof., dr. (Szeged, Beloiannisz ter 7); MARTA, Ferenc,
dr. (Szeged, Beloiannisz ter 7)

Effect of nitric oxide on the thermal decomposition of
propionaldehyde. III. Mechanism of the effect of nitric
oxide in the thermal decomposition of propionaldehyde.
Acta chemica Hung 32 no.1:81-95 '62.

1. Institute of Inorganic and Analytical Chemistry,
University of Szeged.

SZABO, Zoltan G., prof., dr. (Szeged, Beloiannisz ter 7)

"Physical chemistry; 2d rev.ed." by E.A. Moelwyn-Hughes.
Reviewed by Z.G. Szabo. Acta chimica Hung 32 no.1:130-132
'62.

1. Institute of Inorganic and Analytical Chemistry,
University of Szeged.

SZABO, Zoltan, egyetemi tanar

The rebirth of inorganic chemistry. Magy tud 69 no.6/7:399-403
Je-Jl '62.

1. Szegedi Tudomanyegyetem; Magyar Tudomanyos Akademia levelező
tagja.

SZABO, Zoltan, egyetemi tanar; POLINSZKY, Karoly, a kemiai tudomanyok doktora; MATOLCSY, Kalman, a kemiai tudomanyok kandidatusa; LEVAY, Gyula; NAGY, Ferenc, a kemiai tudomanyok doktora; BEREZ, Endre, a kemiai tudomanyok kandidatusa docens; KORACH, Mor, akademikus; LENGYEI, Sandor, a kemiai tudomanyok doktora; SCHAY, Geza, akademikus, gyetemi tanar; ERDEY-CRUZ, Tibor, akademikus

1. Problems of and experiences with coordinating the main task of the long-range research entitled "Investigation of the mechanism of chemical processes as well as the regularities of chemical industrial operations." Kem tud kozl MTA 20 no.2: 199-229 '63.

1. Magyar Tudomanyos Akademia levelezo tagja; "A Magyar Tudomanyos Akademia Kemiai Tudomanyok Osztalyanak Kozlemenyei" szerkeszto bizottsagi tagha (for Szabo). 2. Veszpremi Vegyipari Egyetem rektora; "A Magyar Tudomanyos Akademia Kemiai Tudomanyok Osztalyanak Kozlemenyei" szerkeszto bizottsagi tagja (for Polinszky).
3. Magyar Tudomanyos Akademia Kozponti Kemiai Kutato Intezete igazgatohelyettese (for Nagy). 4. Eotvos Lorand Tudomanyegyetem Fizikai Kemiai es Radiologial Tanszeke. 5. Magyar Tudomanyos Akademia Muszaki Kemiai Kutato Intezetenek igazgatoja; "A Magyar Tudomanyos Akademia Kemiai Tudomanyok Osztalyanak Kozlemenyei" szerkeszto bizottsagi tagja (for Korach). 6. Akademia Elektrokemiai Kutato Csoport vezetoje; "A Magyar Tudomanyos Akademia Kemiai Tudomanyok Osztalyanak Kozlemenyei" szerkeszto bizottsagi tagja (for Lengyel).
(cont. on next card.)

BATA, I. [Batta, I.]; SHOL'MOSHI, F. [Solymosi, F.]; SABO, Z.G. [Szabo, Z.G.]

Effect of spinel formation on the catalytic and electric properties
of the nickel oxide - chromium oxide system. Kin. i kat. 5 no.5:
842-848 S.O '64. (MIRA 17:12)

1. Institut neorganicheskoy i analiticheskoy khimii universiteta
goroda Seged, Vengriya.

L 63189
ACCESSION NR: AT5021759

HU/2502/64/041/01-/0219/0229

AUTHOR: Batta, Istvan (Doctor)(Szeged); Bansagi, Tamas (Bansagi,T.)(Szeged);
Solymosi, Frigyes (Shol'moshi,F.)(Doctor)(Szeged); Szabo, Zoltan G. (Sabo, Z.G.)
(Doctor)(Szeged)

TITLE: Dependence of the properties of spinels on the conditions of their formation *20 BH*

SOURCE: Academia scientiarum hungaricae. Acta chimica, v. 41, no. 1-2, 1964,
219-229

TOPIC TAGS: mineral, x ray diffraction analysis, spectroscopy

ABSTRACT: This article is a text of the authors' paper presented at the XIXth International Congress of Pure and Applied Chemistry, held in London, England, 17 Jul 63. The X-ray diffractometric, spectroscopic, and chemical characteristics of spinels obtained or formed by various means were established and discussed.
Orig. art. has: 14 graphs.

ASSOCIATION: Institute of Inorganic and Analytical Chemistry, A. Jozsef University, Szeged; Reaction Kinetical Research Group, Hungarian Academy of Sciences, Szeged
Card 1/2 //

L 63189-65
ACCESSION NR: AT5021759

SUBMITTED: 14Feb64

ENCL: 00

SUB CODE: GC, OP

NR REF Sov: 000

OTHER: 000

JPRS

XCard 2/2 M.LK

L 1184-66 EPF(c) RM
ACCESSION NR: AT5025196

HU/2502/64/042/004/0339/0341

AUTHOR: Szabo, Zoltan G. (Professor, Doctor)(Szeged); Galiba, Ilona (Szeged);
Gal, Dezso (Doctor)(Szeged)

TITLE: A moving-wall system for the study of the wall effect in the oxidation of
hydrocarbons

SOURCE: Academia scientiarum hungaricae. Acta chimica, v. 42, no. 4, 1964, 339-341

TOPIC TAGS: oxidation, hydrocarbon, chemical laboratory apparatus

ABSTRACT: Preliminary experiments to establish the suitability of a novel moving-wall apparatus for the investigation of the wall effect in the oxidation of hydrocarbons were reported on. The apparatus consists of a flow-reaction system with a movable large-specific-surface wall inside. Tests on the oxidation of heptane gas indicated that the apparatus may be suitable for the intended purpose. Orig. art.
has: 2 figures.

ASSOCIATION: Institute of Inorganic and Analytical Chemistry and Central Isotope
Laboratory of A. Jozsef University, Szeged

SUBMITTED: 07Aug64

ENCL: 00

SUB CODE: OC, GC

NR REF Sov: 001

OTHER: 003

JPRS

Card 1/1

SZABOLCS, Zoltan, dr.

Results and prospects in the treatment of gastric cancer. Orv.
hetil. 105 no.36:1681-1689 6 S '64.

1. Vas megyei Tanacs Markusovszky Lajos Korhaza, I Sebeszeti
Osztaly, Szombathely.

SZABO, Zoltan; GALIBA, Ilona; GAL, Dezso

Moving wall system for testing wall effect in the oxidation
of hydrocarbons; a preliminary communication. Magy. ~~var~~ folyoir.
71 no.1:45-46 Ja '65.

1. Chair of Inorganic and Analytic Chemistry of the Attila
Jozsef University, Szeged, and Research Group of Reaction
Kinetics of the Hungarian Academy of Sciences.

SZABO, Z.L.

Investigating the purity of amino acid preparations.

p. 322. (MAGYAR KEMIAI POLYOIRAT) Vol. 63, no. 11, Nov. 1957
Budapest, Hungary

SO: Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 3,
March 1958

Szabo, Z.L.

4

Purity tests for amino acid preparations. E. Schulek and
Z.L. Szabó (L. Eötvös Univ., Budapest). *Z. anal. Chem.*
157, 405-11(1957).—The amino acid(s) (I) sample is chro-
matographed on paper. Foreign I are detected by the
ninhydrin reaction and N is detd. on all spots. The
designation "paper chromatographically pure" is suggested
for samples with no foreign I present. K. G. Stone

TOROK, Tibor; SZAKACS, Otto; SZABO, Zoltan Laszlo

Investigations in the field of spectrum analysis with rotated
blast furnace aluminum models. Magy kem folyoir 66 no.12:487-
490 D '60.

1. Eotvos Lorand Tudomanyegyetem Szervetlen es Analitikai
Kemiai Intezete, Budapest.

TÖRÖK, Tibor; SZABO, Z.L.

Spectralanalytical research with screw electrodes from
metallurgical aluminum. Chemia anal 7 no.1:195-200
'62.

1. Institute of Inorganic and Analytical Chemistry,
L. Eötvös University, Budapest.

ZIMMER, Karoly; SZABO, Zoltan Laszlo; PATAY, Pal

Spectrographic investigation of archaeological finds of the
Copper and Bronze ages. Magy kem folyoir 68 no.12:515-519
D '62.

l. Eotvos Lorand Tudomanyegyetem Szervetlen es Analitikai Kemial
Tanszeke, Budapest.

ZIMMER, Karoly; SZABO, Zoltan Laszlo; PATAY, Pal

Spectrographic analysis of archaeological finds from the
Copper and Bronze ages. Musz elet 18 no.5:15 28 F '63.

HUNGARY

SZABO, Zoltan, Department of Psychology at Lenin Metallurgical Works (Lenin Kohaszati Muvek Pszichologiai Osztaly)[location not given].

"Recommendation for a Standard Sensomotor Test"

Budapest, Magyar Pszichologiai Szemle, Vol 23, No 1-2, 1966, pp 242-247.

Abstract: One of the most important instruments employed at Lenin Metallurgical Works for aptitude testing is the French developed Lahy device. This device comprises a stimulator, a programmer, a recorder, and manipulator. The testing sequence and the evaluation method employed was described and the results obtained in numerous tests were analyzed. It was recommended that some standardization be implemented in the test program and the method for the evaluation of the results. Some considerations regarding the development of such a standard were presented. No references.

1/1

- 48 -

MIPPO, Z., Jr.

Problems of sewage in the food industry. p. 175.
(ELEMEZESTI IPAR. Vol. 9, no. 6, June 1955. Budapest.)

SO: Monthly List of East European Accession. (EHAL). Lc. Vol 1 Nov. 11 Nov. 1955 Uncl.

Hungary/Chemical Technology - Chemical Products and Their Application. Mineral Salts. Oxides. Acids. Bases, I-5

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62086

Author: Szabo, Zoltan; Beck, Mihaly

Institution: None

Title: Recovery of Iodine from Domestic Mineral Waters

Original

Periodical: A jod kinyerese hazai asvanyvizekbol., Magyar kemik lapja, 1955, 10, No 10, 317-318; Hungarian

Abstract: Water is treated with freshly prepared solution of Hg_2Cl_2 , using a 25% excess. Precipitate of Hg_2J_2 is treated with H_2S . The resulting mixture of 3 hydrohalogen acids is oxidized and separated. For recovery of Hg from waste water it is treated with sulfide of alkali metals and filtered through sand. There is given a review of Hg regeneration.

Card 1/1

BANK, Istvan; MOLNAR, Endre; TOROK, Piroska, dr.; RAKSANYI, Arpad, dr.;
~~OROSZLAVI~~, Istvan; FINALY, Lajos; NAGY L. Denes; SZABO, Zoltan,
dr.

Possibilities for the agricultural utilisation of sewage
waters in Hungary. Hidrologiai kozlony 36 no.1:69-76 F'56.

1. "Hidrologiai Kozlony" szerkeszto bizottsagi tagja (for Szabo).

SZABO, Z.

HUNGARY / Chemical Technology. Chemical Products and Their
Application. Part 1. - Water Treatment. Sewage.

H

Abs Jour: Ref. Zhurnal Khimiya, No 21, 1958, 71264.

Author : Zoltan Szabo.

Inst +

Title : Study of Work of Ponds for Sewage Purification.

Orig Pub: Epuletgepeszet, 1957, 6, No 5-6, 144-148.

Abstract: Results of bacteriological studies carried out
under various conditions of work and at various
stages of sewage purification are presented.

Card : 1/1

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APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001654330011-7"

HUNGARY / Chemical Technology. Chemical Products and H-5
Their Application--Water Treatment. Sewage

Abs Jour: Ref Zhur-Khimiya; No 3, 1959, 8663

Author : Szabo, Z.

Inst : Not given

Title : Norms for Drainage Waters

Orig Pub: Epuletgepeszet, 1958, 7, No 1, 17-23

Abstract: A summary of studies conducted with the aim of es-
tablishing maximum permissible tolerances in re-
servoirs and water supplies of toxic substances
dumped from drainage waters. A composite table is
given. --S. Tipolt

Card 1/1

SZABO, Z., JR.

MECHANICAL

Periodical: EPUBLETOSZPENGET. Vol. 8, no. 1, 1959.

SZABO, Z., JR. Determination of the purifying capacity of installations
treating sewage by biological methods. p. 5.

Monthly List of East European Publications (EEAI) 10, VOL. 6, No. 5,
May 1959, Unclass.

SZABO, Zoltan

Filtration in the food industry. Pt.1. (To be contd.). Elelm
ipar 13 no.5:162-164 My '59.

1. Elelmiszeripari Tervezo Intezet.

SZABO, Zoltan

Filtration in the food industry. Pt. 2. Elelm ipar 13 no.6:
192-196 Je '59.

1. Elelmiszeripari Tervezo Intezet.

SZABÓ, Zoltan, dr. (Jr)

Hydrobiological and hydraulic investigations concerning the drinking water supply of the city of Pécs. Hidrobiológiai kezpony 43 n.1:60-72 F '63.

1. Vizagazdálkodási Tudományos Kutató Intézet, Budapest.

RUMANIA

SZABO, Zsigmond, Dr, Cluj [affiliation not given]

"Neurosecretion and Neurohormones in Invertebrates."

Bucharest, Natura. Seria Biologie, Vol 18, No 2, Mar-Apr 66,
pp 19-22.

Abstract: Summarizing recently published data, the author clarifies the process of neurosecretion in insects and discusses the action of neurohormones in nonvertebrates, especially some processes of hormonal regulation of vital processes.

Includes 5 references, of which 3 are German and 2 English-language.

1/1

- 15 -

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001654330011-7"

SZABO, Zsigmondne

International Woman's Day. Munka 13 no.3:20-21 Mr '63.

1. Boripari Dolgozok Szakszervezete szervezesi osztalya
munkatarsa.

SZABO, ZS.

"The biliary cirrhotic liver of infants in connection with abnormalities of development"
p. 309
(KISERLETES ORVOSTUDOMANY, VOL. 4, No. 4, Aug 1952, Budapest, Hungary)

SO: Monthly List of East European Accessions, Vol. 2, LC. No. 7, July 1953, Uncl.

BERENKEY, Kornei, dr.; SZARO, Zsolt, dr.

Holocardius. Magy. noorv. lep. 18 no.6:377-378 Nov 55.

1. A Tatabanyai Megyei Korhaz szuleszeti es korbonctani
osztalyainak kozlemenye (Igazgato: Kabdebo, Jozsef dr.).
(MONSTERS

holocardius accephalus with premature normal twin.)

SZABO, Zsolt, dr.

Mass mushroom poisoning in Komarom in 1953. Nepegeszsegugy
36 no.8:225-227 Aug 55.

1. Kozlemeny a megyei korhaz (igazgato: Kabdebo, Jozsef dr.)
proszezturajarol (foorvos: Szabo, Zsolt dr.).

(POISONING,

mushrooms, mass outbreak in Hungary.)

(MUSHROOMS, poisoning,

mass outbreak in Hungary.)

SZABO, Zsolt; VARGHA, Gyula

Histological effects of Liquiritia extracts on gastric ulceration produced by cinchophen in dogs. Kiserletes orvostud. 8 no. 4:406-410 July 56.

- Cincho / 4 esp. C. P. C. L. A. R.*
1. Komarommegyei Tanacs Korhaz Prosekturaja, Tatabanya.
(CINCHOPHEN, inf. eff.
exper. gastric ulceration, eff. of licorice in dogs,
histopathol. (Hun))
(PEPTIC ULCER, exper.
cinchophen induced, eff. of licorice in dogs, histopathol.
(Hun))
(LICORICE, eff.
on exper. gastric ulceration induced by cinchophen,
histopathol. (Hun))

HUNGARY / Pharmacology, Toxicology. Anti-Inflammatory
Drugs. V

Abs Jour: Ref Zhur-Biol., No 9, 1958, 42454.

Author : Szabo, Z.; Vargha, G.

Inst : Not Given.

Title : The Action of Licorice Extract On Gastric Erosion
in Rats.

Orig Pub: Kiserl. orvostud., 1957, 9, No 1, 8-11.

Abstract: Licorice extract stopped development of gastric
erosion in rats under the effects of histamine
and contributed to their survival.

Card 1/1

SZABO ZSOLT; VARGHA GYUJA

Histological effect of vitamin U on ulcers induced on the stomach of
dogs. Kiserletes orvostud. 10 no.2-3:200-206 Apr-June 58.

1. Tatahanyai Megyei Korhaz Prosektraja es Ulcusgondozaja.
(VITAMINS, eff.
vitamin U on histol. of peptic ulcer in dogs (Hun))
(PEPTIC ULCER, exper.
eff. of vitamin U on histol. picture in dogs (Hun))

SZABO, Zsolt; RODE, Gyorgy

Pathography of cystic glandular hyerplasia of endometrium. Magy. noorv.
lap. 21 no.1:23-27 Feb 58.

1. Komarom megyei Tanacs Korhaza (igazgato: Kabdebo Jzsef dr.) korbonctani
(foorvos: Szabo Zsolt dr.) es nobeteg (foorvos: Rode Gyorgy dr.) osztal-
yanak kozlemenye.

(ENDOMETRIUM, dis.

hyperplasia, glandular cystic, histopathol. (Hun))

KOLTA, Ferenc, Dr.; SZABO, Zsolt, Dr.

Disease picture & pathogenesis of intestinal pneumatosis cystoides
in infants. Gyermekgyogyaszat 10 no. 4:113-118 Apr 59.

1. Kozlemeny a Tatabanyai Megyei Korhaz (igazgato: Kabdebo Jozsef
dr.) korbonctani Osztalyarol (foorvos: Szabo Zsolt dr.) es a Komarom-
megyei Kozegeszsegugyi Jarvanyugyi Allomas (igazgato: Zambolt Kalman
dr.) laboratoriumabol (foorvos: Pinter Istvan dr.)

(INTESTINES, cysts
pneumatosis cystoides in inf. (Hun))

VARGHA, Gyula, dr.; SZABO, Zsolt, dr.

Treatment of peptic ulcer with "anti-ulcer-U factor" stabilized
in tablets of "Vit-U-Pept Magen Darm". Magy. belorv.arch. 13 no.4:
113-120 Ag '60.

1. Komarommegyei Tanacs Korhaz-Rendelointezete, Tatapanya (Ig.
foorv.: Lakatos Istvan dr.), rontgenosztalya es ulcusgondozaja
(Foorvos: Vargha Gyula dr.), valamint Korbonctana (Foorvos:
Szabo Zsolt dr.) kozlemenye.
(PEPTIC ULCER ther)

SZABO, Zsolt, dr.; MEGYERI, Jozsef, dr.

Autopsy material on infants under 1 year of age with and without congenital abnormalities. Gyermekgyogyaszat 12 no.11:344-348 N '61.

1. Tatabanyai Megyei Korhaz (Igazgato: Lakatos Istvan dr.) Korbonctani Osztalyanak (Foorvos: Szabo Zsolt dr.) kozlemenye.

(INFANT MORTALITY statist)

SZABÓ, Zsolt, dr.

Data on the problem of the multiplicity of congenital malformations.
Orv. hetil. 103 no.11:502-503 18 Mr '62.

1. Tatapanyai Megyei Korhaz, Korbonctani Osztály.

(ABNORMALITIES statist)

SZABO, Zsolt, dr.; BORZSONYI, Matyas, dr.

Data on the clinico-pathological aspects of the abnormal development
of the digestive tract. Gyermekgyogyaszat 14 no.6:161-164 Je '63.

1. A Tatabanyai Megyei Korhaz (ig.: Gergely Tibor dr.) Korbonctani
Osztalyanak (foorvos: Szabo Zsolt dr.) kozlemenye.
(INFANT, NEWBORN, DISEASES) (GASTROINTESTINAL SYSTEM)
(HYDRAMNIOS)

HUNGARY

SZABÓ, Zsolt, Dr, REFFY, Antal, Dr; Megye Hospital of Tatapanya (director: GÉRGELY, Tibor, Dr), Department of Pathology (chief physician: SZABÓ, Zsolt, Dr) (Tatabanyai Megyei Korhaz, Korbonctani Osztaly).

"The Relation Between Terato-Surgical Measures and the Prognosis of Developmental Anomalies in View of Autopsy Data."

Budapest, Mályar Sebeszet, Vol XVI, No 5, Oct 63, pages 278-281.

Abstract: [Authors' Hungarian summary] In the evaluation of the autopsy reports of 350 cases of spina bifida, diaphragmatic, umbilical, inguinal and scrotal hernias it was found, that the developmental anomalies were the direct or indirect cause of death in 175 of the cases. The possibilities of intrauterine diagnosis are pointed out and attention is called to the importance of early diagnosis after birth to enable immediate surgical intervention where it is called for. Some literature data are stressed which seem to prove that surgery in the perinatal period presents no more danger to the child than in later infancy, since the defects grow with the child and the biological resistance decreases. 5 Hungarian, 4 Western references.

1/1

HUNGARY

NAGY, Gyula, Dr, SZABO, Zoltan, Dr, TURANYI, Janos, Dr, veterinary specialists; Central Head Station of Artificial Insemination (director: MESZAROS, Istvan, Dr, cand. of vet. sci.) (Kozponti Mesterseges Termekenyito Foallomas).

"The Relationship Between the Modified Methylene Blue-Reducing and Salt-Resistance Tests, and the Results of First Inseminations."

Budapest, Magyar Allatorvosok Lapja, Vol 21, No 11, Nov 66, pages 494-497.

Abstract: [Authors' English summary modified] The methylene blue-reduction test is widely used in the laboratory practice of artificial insemination stations, in Hungary. It has not worked well, however, since it does not eliminate the uncertainty of the test derived from concentration differences of the spermatozoa. A modification of the test is described by the authors. With the modified method, reduction time fluctuated between 3-27 minutes in the case of the 78 ejaculates tested. In the course of 824 inseminations using these ejaculates, an inverse relationship was found between reduction time and conception. Only those ejaculates were found suitable for insemination the reduction time of which was below 18 minutes. The currently used salt-resistance test was also modified. A direct proportionality was found between the modified resistance time and the ratio of conceptions and it was concluded that only those ejaculates are suitable for insemination the resistance time of which is more than 120 minutes. 4 Eastern European, 1 Western reference.

LANYI, Kalman (Budapest); SZABO, Zsuzsa (Budapest)

Benzolsulfonylurethane derivatives. I. Preparation of benzolsulfo-
nylurethane derivatives and their amine salts. Kem tud kozl MTA 15
no.1:45-49 '61. (EEAI 10:6)

1. Chinoim Gyogyszer- es Vegyeszeti Termek Gyara, Budapest.
(Benzenesulfonylurethans) (Amines)

LANYI, Kalman (Budapest IV., Ujpest, To u.1-5); SZABO, Zsuzsa (Budapest IV.,
Ujpest, To u.1-5)

Data on benzenesulfonylurethanes. II. Aminolysis of benzenesulfonylurethanes. Acta chimica Hung 29 no.2:189-198 '61.

1. Chinoin Fabrik chemisch-pharmazeutischer Produkte.

(Benzenesulfonylurethanes)

L 57000-00

ACC NR: AP6028464

SOURCE CODE: HU/0018/66/000/003/0294/0299
20
B

AUTHOR: Lusztig, Gabor; Szabo, Zsuzsanna; Jozsa, Laszlo

ORG: Department of Pathological Anatomy and Pathohistology, Bacs-Kiskun County Council Hospital, Kecskemet (Bacs-Kiskun Megyei Tanacs Korhaz, Korbonctani Korszovettani Osztaly Laboratorium); Laboratory, Baco-Kiskun County Council Hospital (Bacs-Kiskun Megyei Tanacs Korhaz, Laboratorium)

TITLE: Study of the anticoagulant and clearing-type effect of serum in experimental cholesterol sclerosis

SOURCE: Kiserletes orvostudomany, no. 3, 1966, 294-299

TOPIC TAGS: rabbit, coagulation, serum, blood chemistry, alcohol

ABSTRACT: In a continuation of earlier observations, the following conclusions were reached. 1) In the course of cholesterol-feeding of rabbits, there is also mobilization of a presumably heparin-like substance which, however, can not prolong the recalcification time. 2) There is an increase in the clearing-type activity of the serum of cholesterol-fed rabbits which can definitely produce a temporary decrease in the turbidity of lipemic serum. 3) The increase in cholesterol administration will increase the blood heparin content measured by the thrombin-inactivation method. The results are evaluated and the necessity of further studies on the subject is pointed out. It is thought that the results represent a confirmation of an earlier hypothesis by the authors, the existence of an anti-cholesterolemic factor which develops in response to cholesterol administration. On the basis of the observations, this factor develops as part of the general mesenchyme reaction and must have a heparin-like effect. Orig. art. has: 1 figure and 2 tables. [JPRS: 36 599]

SUB CODE: 06 / SUBM DATE: 19Jun65 / ORIG REF: 005 / OTH REF: 030

Card 171

09/7 028A

HUNGARY

JOZSA, Laszlo, SZABO, Zsuzsanna, LUSZTIG, Gabor; Bacs-Kiskun Megye Council Hospital, Institute of Pathological Anatomy and Pathohistology, and Laboratorium (Bacs-Kiskun Megyei Tanacs Korhaz, Korbonctani-Korszovettani Intezet es Laboratorium), Kecskemet.

"Study of the Anticoagulant Effect of Human Aortic Mucopolysaccharides."

Budapest, Kiserletes Orvostudomany, Vol XVIII, No 4, Aug 66, pages 426-433.

Abstract: [Authors' Hungarian summary] The effect of mucopolysaccharides of human vascular walls on blood coagulation was studied. The following findings were made: 1) The anticoagulant effect is the property not of a single mucopolysaccharide fraction but, in addition to heparin and heparitin, chondroitin sulfate and probably hyaluronic acid also have an anti-coagulant effect. Indicative of this is the observation that the addition of toluidine blue will not normalize the thrombin time, increased in response to polysaccharides of the vascular wall, while the increase in thrombin time will be inhibited in response to hyaluronidase fermentation. 2) Large amounts of mucopolysaccharides of the vascular wall will inhibit the clotting of the system consisting of recalcified blood and prothrombin (Quick). 3) The mucopolysaccharides of the normal vascular wall had in part a different influence on the clotting factors studied than had the polysaccharides of the aorta of hypothyroid or atherosclerotic patients. The differences in the polymerization of mucopolysaccharide fractions are considered to be responsible for those differences. 8 Eastern European, 1/1 14 Western references. [Manuscript received 8 Sep 65.]

SZABO-DRUMINA, M.

Petrologic conditions of the manganese-ore occurrence at Eplent. p. 331

A MAGYAR ALLAMI FOLDTANI INTÉZET EVI JELENTESE, Budapest, Hungary, 1955/56 (Published 1959)

Monthly List of East European Accessions (EEAI)LC, Vol. 9, No. 2, Feb. 1960
Uncl.

KUN, Endre, okleveles bányamérnök; PECSY, Tibor, okleveles geopatológus;
SZABÓ-TELSÖCZI, Márta, okleveles vegyesz

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of applied technological principles of greater significance. Bány
lap 98 no.4:245-250 Ap '65.

1. Mining Research Institute, Budapest.

SZABO-SILUBINA, M.

The geological and sedimental-mineralogical character of Hungarian manganese ores

P. 261, (MAGYARORSZAGI, BOLLETJE OF THE HUNGARIAN GEOLOGICAL SURVEY)
Vol. 87, no. 3, July Sept. 1957.
Budapest, Hungary

SC: Monthly Index of East European Acquisitions (EEAI) LC. Vol. 7, No. 3,
March 1958

KUN, Endre, okleveles banyamernok; SZABO-PELSOCZI, Masha, okleveles vegyesz

Investigation of inorganic mineral contents in coal sludge undergoing
flotation. Bany lap 97 no.7:480-488 Jl '64.

1. Mining Research Institute, Budapest.

MIRON, Radu, conf. univ.; NEGREI, Veronica; MANOLIU, Lucia; POLIZU, Lucia;
VISA, Eugen; HAIVAS, M.; GLIGOR, I.; FUCHS, I.; ZOICAN, Voicu;
BAGHINA, V., prof.; HADIRCA-BREAZA, I.; IVANESCU-TIRGOVISTE, C.;
NEGREA, M.; SPIRIDON, I.; SZABO-PLOIESTI, T.; GRIGORE-PLOIESTI, I.,
prof; BAZACOV, Gh., prof.; PAUNESCU, Al.; MORARU, I.; SAHAGIA, C.;
UDREA, V., prof. (Galati); NIMITAN, I. (Suceava)

Observations on the Analytic Geometry Manual for the 11th grade.
Gaz mat fiz 15 no.6:298-321 Je '63.

1. Societatea de Stiinte Matematice si Fizice, Filiala Iasi (for Miron).
2. Societatea de Stiinte Matematice si Fizice, Filiala Craiova (for Negrei, Manoliu, Polizu).
3. Societatea de Stiinte Matematice si Fizice, Filiala Timisoara (for Visa, Haivas, Gligor, Fuchs).
4. Societatea de Stiinte Matematice si Fizice, Subfiliala Petroseni (for Zoican).
5. Societatea de Stiinte Matematice si Fizice, Filiala Ploiesti (for Baghina, Hadirca-Breaza, Ivanescu-Tirgoviste, Negrea, Spiridon, Azabo-Ploiesti, Grigore-Ploiesti).
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ALMASSY, Karoly; SZABO-SZUCS, Janos

Use of white mice in determination of rabies virus. Kiserletes
orvostud. 8 no.2:163-167 March 56.

1. Phylaxia Allami Oltoanyagtermelo Intezet.

(RABIES, virus

use of white mice in determ. (Hun))

(VIRUSES

rabies, use of white mice in determ. (Hun))

(MICE

white mice, use in determ. of rabies virus. (Hun))

HUNGARY/Microbiology - Microbes Pathogenic in Man and Animals. F.

Abs Jour : Ref Zhur - Biol., No 15, 1958, 67395

Author : Szabo-Szucs, Janos

Inst :

Title : An Investigation of the Ability of Tuberculosis Strains to Produce Tuberculin.

Orig Pub : Magyar allatorv. lapja, 1957, 12, No 3, 81.

Abstract : No abstract.

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- 25 -

LASZLO, Eva, dr.; SZABO SZUCS, Janos, dr.

Microbiological way of preparing carotene. Magy allatorv lap 17:
26-28 S '62.

1. Phylaxia Allami Oltoanyagtermelo Intezet, Budapest.

SZABO VAJDA, Istvan

Certain questions relating to the automation of technological
methods and manufacturing processes in the wood industry.
Faipar 13 no.3:86-89 Mr '63.

1. ERDTERV.

SZABOLCS, A.

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✓ 94. Results of experiments and plant experiences with continuous dyeing - N. M. Salk, J. Rausch, A. Szabolcs
bull. "Färber", (Magyar) - 1955, Nr. 1, pp.
31-34).

In the majority of continuous dyeing processes in preparation with dye liquor and fixation are separated in both time and space. The purpose of padding is the even distribution of fibres. In padding unevennesses in the cross-section may occur due to the low penetration of dye, one of the causes of which is high interfacial tension between the fibres and the solution. The other is that the concentration of the dye liquor undergoes a reduction in the course of absorption by the fabric and thus the liquor that reaches the interior of the fabric is considerably weaker. The phenomenon called tailing, is occasioned by dyeing during the time of padding. All the factors which improve dye penetration are also favourable for the elimination of changes in the depth of colour at the beginning of the padding, i.e., tailing. The relation between the variation of colour and time is given by an exponential equation, padding trough volume plays a decisive role. A minimum affinity is maintained for the elimination of unevenness in padding. Indanthrene padded in the form of pigment suspensions. The continuous dyeing process using indanthrene pigment, elaborated by the Research Institute of the Textile Industry, employs Rougallite as a reducing agent. Squeezing and liquid turbulence are applied for improved dye penetration. The hydrostatic pressure of a metal bath can also be utilized for the removal of excess liquid. For the purpose of heat energy transfer necessary for the formation of the temperature of fixation some methods use steam, others heated liquids e.g. a metal bath or oil bath. The main object of the soaping of indanthrene is to fully develop fastness values. This cannot be obtained frequently in open-width washers.

L 17679-66

ACC NR: AT6009224 SOURCE CODE: HU/2502/65/043/002/0159/0160
AUTHOR: Szabolcs, Anna (Budapest); Gruber, Lajos (Budapest); Otvos, Laszlo (Budapest)
ORG: Central Research Institute for Chemistry, Hungarian Academy of Sciences, Budapest
TITLE: Synthesis of 1,6-bis-(beta-chloroethyl- sup 14 C sub 1 - amino)-1,6-dihydrochloride (degranol- sup 14 C) E+1
SOURCE: Academia scientiarum hungaricae. Acta chimica, v. 43, no. 2, 1965, 159-160
TOPIC TAGS: organic synthetic process, drug, carbon, tracer study, hydride, lithium, aluminum, chlorination, cyclic group
ABSTRACT: The synthesis of the drug Degranol (in the C-14 labeled form) was described. Glycine-1-¹⁴C ethyl ester was reduced with lithium aluminum hydride to 2-aminoethane-1-¹⁴C-1-ol, which was converted by chlorination with thionyl chloride into 2-chloroethylamine-¹⁴C. The latter compound was cyclized in the presence of NaOH to ethylene-¹⁴C-imine, which was condensed with 1,2,5,6-dianhydro-3,4-isopropylidene-D-mannitol and the product hydrolyzed to yield ¹⁴C-Degranol labeled on the C atom of the β-chloroethylamino group. [JPRS]

SUB CODE: 06, 07 / SUBM DATE: 22Sep64 / ORIG REF: 002 / OTH REF: 003

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Card 1/1

Szabolcs, G.

HUNGARY/Safety Engineering. Sanitary Engineering. Sanitation. L

Abs Jour: Ref Zhur-Khimiya, No 3, 1957, 10728

Author : Szabolcs, G.

Inst : Not given

Title : Study of the Distribution of Dust from Industrial Enterprises

Orig Pub: Magyar techn., 1954, Vol 9, No 4, 225-226 (in Hungarian)

Abstract: It is proposed to increase the exit velocity of waste gases in order to prevent their rapid settling. A graph is given showing the dependence of the distance of settling on the size of the particles for a given wind velocity. The problems of dust precipitation are discussed.

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U.S. GOVERNMENT PRINTING OFFICE

MEASUREMENTS AND MEASURING INSTRUMENTS IN THE TECHNIQUE OF INDUSTRIAL DUST CONTROL.

p 433. (MAGYAR ENERGIAGAZDASAG) BUDAPEST, HUNGARY VOL. 9 NO 11/12 NOV/DEC 1957

SO: MONTHLY INDEX OF EAST EUROPEAN ACESSIONS (AEEI) VOL. 6 NO 11 NOVEMBER 1957

SZALOGI, G.

New viewpoints and methods of dust technological measuring. p. 529.

ENERGIA ES ATOMTECHNIKA. (Energiagazdalkodasi Tudomanyos Egyesulet.)
Budapest, Hungary. Vol. 12, no. 9, Oct. 1959.

Monthly list of East European Accessions (REAL) LC, vol. 9, no. 1, Jan. 1960

Uncl.

SZABOLCS, G.

Investigating the technical problems of dust and fluid mechanics in Hungarian power plants.

P. 624. (ENERGIA ES ATOMTECHNIKA.) (Budapest, Hungary) Vol. 10, No. 11/12,
Nov./Dec. 1957

SO: Monthly Index of East European Accession (EEAI) LC. Vol. 7, No. 5, 1958

SZABOLCS, Gabor, okl.gepeszmernok

Application of rippled tag air heaters at the boiler plants in
the German Federal Republic. Ipar energia 2 no.12:274-277 D '61.

1. Hitechnikai Kutato Intezet.

H/006/61/014/007/001/002
B122/B227

AUTHOR: Szabolcs, Gábor

TITLE: Examination of the heat-transfer coefficient and the process
of heat exchange in vortex flow

PERIODICAL: Energia és Atomtechnika, 1961, v. 14, no. 7, 289-296

TEXT: This paper is a publication of the Hőtechnikai Kutató Intézet (Research Institute of Heat Engineering) and a description of measurements made at that Institute on draught loss and on heat transfer in tubes for the calculation of the heat-transfer surface in dust removal equipment combined with air preheaters of boilers. The author claims to have found in the publication quoted only odd data on that matter. He does not describe the very extensive investigations in detail and points out their results and conclusions derived therefrom. The measuring arrangement was that used by W. Nunner and R. Koch (V.D.I. Forschungshefte, no. 351 and 469 respectively). Vortex flow was produced by guide vanes in tubes of circular and annular cross-section. The rate of increase of the draught-loss coefficient was found to be constant with the exception of a short

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initial section of the tube of circular cross-section, where it decreased (Fig.3). The heat-transfer coefficient has a very high value immediately after the vortex-producing vanes, later it gradually decreases versus length. The author has set up an empirical equation expressing a relation between draught loss and the heat-transfer coefficient. For the circular cross-section, the mean value of the Nusselt number is calculable from the equation: $Nu_k = 0.018 Re^{0.895} \zeta^{0.287}(1/d)^{-n}$... (9), where $n = 0.149 \zeta^{0.219}_{po}$.

For the annular cross-section, the equation takes the form:

$$Nu_{tk} = 0.0854 Re_t^{0.786} \zeta^{0.241}_{po}(1/d_t)^{-m}$$
 ... (10), where $m = 0.135 \zeta^{0.0784}_{po}$. In

these equations ζ_{po} is the virtual draught-loss coefficient. For the circular cross-section, this is obtained if the line $\zeta_p = f(1)$ of Fig.3 is extended as far back as the ordinate axis; Re is the Reynolds number, $d_t = (d_k^2 - d_b^2)/d_k$ the thermic diameter, where d_k is the outer, d_b the inner diameter of the annular cross-section. Sub-index "t" indicates that

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Examination of the heat-transfer ...

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the Nusselt number is calculated for the thermic diameter. For the circular cross-section, the investigations have shown that the vortex flow improves the turbulent heat exchange with an effect as if the Prandtl number had increased. The author supposes that the increase of the heat-transfer coefficient in vortex flow is not only due to that, but the heat exchange in the boundary layer also exchanges because of thinning of the latter in consequence of the angular deflection of the stream. That is, the thermal resistance (back pressure) of the boundary layer decreases with an effect as if the Reynolds number had decreased. For media with high Prandtl number, the effect of vortex flow on the heat-transfer coefficient is relatively smaller, because here the coefficient of turbulent heat exchange is in advance of higher value. There are 15 figures, 2 tables, and 6 non-Soviet-bloc references. The two references to English-language publications read as follows: Ref.2: Evans, J. & Sargent, R. J.: Heat-transfer and Turbulence in Gases Flowing inside Tubes. J. Inst. Fuel 24. 1951. Ref.3: Roderick, D. J. I.: Heat-transfer and Draught Loss in the Tube Banks of Shell Boilers. J. Inst. Fuel Oct. 1959.

ASSOCIATION: Hőtechnikai Kutató Intézet (Research Institute for Heat Engineering)
Card 3/4